

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P589065

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589065
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-2HI-50-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

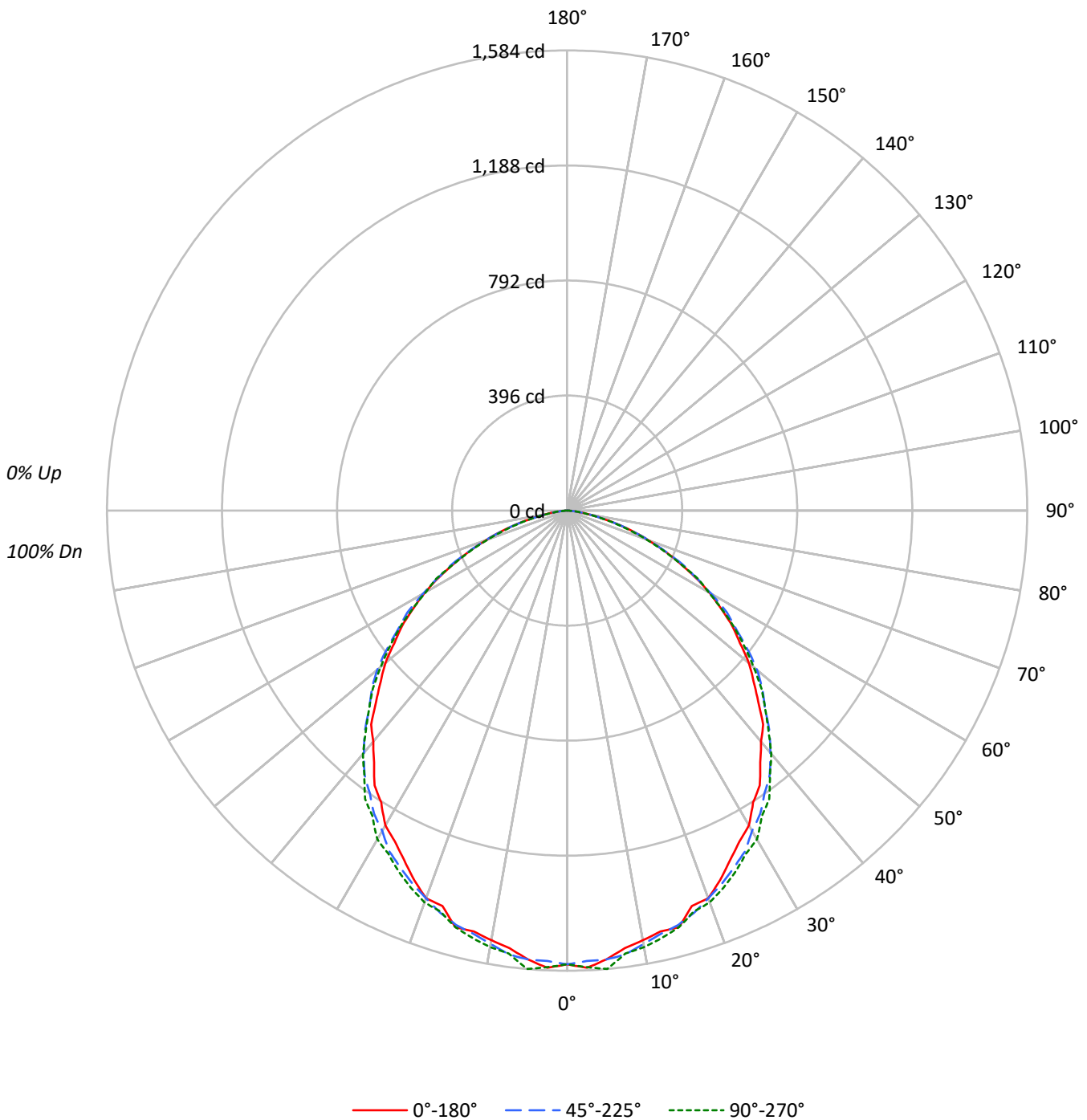
Lumens per Lamp: N/A
Luminaire Lumens: 3936.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P589065

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589065

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-88-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4203	4203	4203
5°	4189	4190	4279
10°	4104	4139	4169
15°	4136	4114	4137
20°	4066	4066	4110
25°	3941	4027	4072
30°	3887	3956	4061
35°	3796	3895	3983
40°	3648	3824	3841
45°	3538	3663	3669
50°	3421	3576	3507
55°	3260	3324	3300
60°	3048	3079	3024
65°	2718	2788	2699
70°	2332	2340	2275
75°	1847	1842	1772
80°	1237	1203	1156
85°	673	667	624



TEST NUMBER: P589065

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.9	3.7
10°-20°	416.3	10.6
20°-30°	623.8	15.8
30°-40°	739.3	18.8
40°-50°	740.6	18.8
50°-60°	628.7	16.0
60°-70°	423.9	10.8
70°-80°	186.2	4.7
80°-90°	30.3	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1187.0	30.2
0°-40°	1926.3	48.9
0°-60°	3295.6	83.7
0°-90°	3936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1562	1562	1562	1562	1562	
5°	1551	1547	1551	1547	1584	146
15°	1485	1468	1477	1484	1485	414
25°	1327	1335	1356	1374	1371	614
35°	1155	1159	1186	1213	1212	717
45°	930	947	963	987	964	719
55°	695	690	708	704	703	618
65°	427	421	438	421	424	425
75°	178	174	177	165	170	190
85°	22	21	22	21	20	32
90°	0	0	0	0	0	



TEST NUMBER: P589065

CATALOG NUMBER: FMR-24-2-LD4-2HI-50-UNV-82-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1561.7	1561.7	1561.7	1561.7	1561.7
2.5°	1575.2	1563.3	1552.2	1565.1	1573.0
5°	1550.6	1547.0	1551.2	1546.6	1583.9
7.5°	1518.8	1532.7	1540.7	1535.7	1537.9
10°	1501.8	1497.0	1514.9	1527.4	1525.6
12.5°	1483.7	1490.9	1491.9	1505.4	1506.7
15°	1484.7	1467.5	1476.6	1484.3	1484.9
17.5°	1427.0	1445.6	1451.8	1469.4	1447.6
20°	1420.0	1406.4	1420.0	1437.9	1435.1
22.5°	1376.6	1361.5	1390.5	1406.4	1405.4
25°	1327.4	1334.7	1356.4	1374.2	1371.4
27.5°	1284.2	1292.7	1323.8	1348.2	1332.4
30°	1251.0	1246.7	1273.0	1294.7	1306.8
32.5°	1191.5	1206.8	1237.5	1259.0	1247.5
35°	1155.4	1158.8	1185.6	1213.1	1212.3
37.5°	1092.3	1108.2	1145.9	1153.6	1146.5
40°	1038.4	1054.4	1088.5	1096.7	1093.3
42.5°	998.7	1001.5	1030.8	1040.3	1025.1
45°	929.6	946.9	962.6	987.4	964.0
47.5°	870.7	878.7	912.6	919.3	907.0
50°	817.2	820.1	854.1	845.9	837.8
52.5°	750.1	762.0	781.2	779.5	770.1
55°	694.9	690.2	708.4	703.5	703.3
57.5°	628.5	636.6	651.5	643.8	631.5
60°	566.4	566.6	572.1	563.4	561.8
62.5°	497.2	499.7	500.9	490.2	507.5
65°	426.9	421.2	437.8	421.0	423.8
67.5°	362.1	365.0	363.4	352.9	356.9
70°	296.4	300.0	297.4	285.5	289.2
72.5°	236.3	231.9	234.7	219.8	226.6
75°	177.6	174.0	177.2	164.7	170.4
77.5°	121.0	123.8	121.8	115.1	119.0
80°	79.8	77.6	77.6	73.8	74.6
82.5°	46.6	44.4	43.8	42.5	44.4
85°	21.8	21.2	21.6	21.0	20.2
87.5°	7.9	8.1	8.1	7.7	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)